

# Energy Efficiency Regulations for Portable Electric Spas

Presented by  
Nicholas Timothy  
Jessica Lopez

Efficiency Division  
Appliances Office

5/1/2019





# Energy Efficiency Regulations for Portable Electric Spas

Our webinar will begin at the top of the hour.

This slide deck will be posted on  
our webpage after the presentation at  
[www.energy.ca.gov/appliances/forms/index.  
html#webdocs.](http://www.energy.ca.gov/appliances/forms/index.html#webdocs)



# Participation Guidelines

To ensure a successful webinar for all:

- Please use the chat feature or raise hand feature to ask questions or make comments
- Please mute your phone
- Please do not place your phone on HOLD
- Please hold questions until the end of the Webinar

Contact us for further information at  
[appliances@energy.ca.gov](mailto:appliances@energy.ca.gov)



# Goals of this Webinar

- Help manufacturers, retailers, contractors, and installers understand the updated appliance energy efficiency regulations for covered portable electric spas
- Highlight the effective date of the regulations
- Explain testing and certification requirements
- Point you to resources
- Answer your questions



# Topic Areas

- Scope
- Definitions
- Test Methods
- Performance Requirements
- Data Submittal Requirements
- Labeling and Certification Requirements

# Scope





# Portable Electric Spas Scope

## Root Definition

Portable Electric Spas

## New Definitions

Standard Spas

Exercise Spas

Combination Spas

Inflatable Spas

## New Definitions

Standard Spa Portion

Exercise Spa Portion

# Definitions







# Definitions

## Title 20 section 1602(g)

**“Portable electric spa”** means a factory-built electric spa or hot tub, supplied with equipment for heating and circulating water at the time of sale or sold separately for subsequent attachment.



# Definitions

## Title 20 section 1602(g) cont'd

**“Standard spa”** means a portable electric spa that is not an inflatable spa, an exercise spa, or the exercise spa portion of a combination spa.





# Definitions

## Title 20 section 1602(g) cont'd

**“Inflatable spa”** means a portable electric spa where the structure is collapsible and is designed to be filled with air to form the body of the spa.





# Definitions

## Title 20 section 1602(g) cont'd

**“Exercise spa”** (also known as a “swim spa”) means a portable electric spa that includes specific features and equipment to produce water flow for water physical therapy or physical fitness activity, including, but not limited to, swimming in place.





# Definitions

## Title 20 section 1602(g) cont'd

**“Combination spa”** means a portable electric spa with two separate distinct reservoirs, where:

- (1) one reservoir is an exercise spa;
- (2) the second reservoir is a standard spa; and
- (3) each reservoir has an independent water temperature setting control.





# Definitions

## Title 20 section 1602(g) cont'd

**“Fill volume”** means the water capacity of the portable electric spa, in gallons, at the halfway point between the bottom of the skimmer opening and the top of the skimmer opening.





# Definitions

## Title 20 section 1602(g) cont'd

**“Standby mode”** of a portable electric spa means that only the default settings as shipped by the manufacturer are enabled, except water temperature, which may be adjusted to meet the test conditions. No manual operations are enabled.

All definitions can be located at the following:

[https://govt.westlaw.com/calregs/Document/I8FF21C40D44E11DEA95CA4428EC25FA0?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=\(sc.Default\)](https://govt.westlaw.com/calregs/Document/I8FF21C40D44E11DEA95CA4428EC25FA0?viewType=FullText&originationContext=documenttoc&transitionType=CategoryPageItem&contextData=(sc.Default))



# Questions?





# Test Methods





# Test Methods

## Title 20 section 1604(g)(2)(B)

The test method for portable electric spas manufactured on or after June 1, 2019, is *ANSI/APSP/ICC-14 2014*, excluding section 8.2, and with the following modifications:

- Fill volume specified
- Water Temperature:
  - Standard and Inflatable:  $102^{\circ}\text{F} \pm 2^{\circ}\text{F}$
  - Exercise:  $87^{\circ}\text{F} \pm 2^{\circ}\text{F}$
  - Combination: Each portion shall be the same as above, with both portions on



# Test Lab Report Requirements

## Title 20 section 1604(g)(2)(C)

### Test lab report requirements:

- Date of Test
- Minimum and maximum water temperature settings
- Copy of label(s)
- Minimum, maximum, and average water temperature during test
- Minimum, maximum, and average ambient air temperatures during test
- Length of test
- Record and plot ambient air temperature, water temperature, current, voltage at a maximum interval of 5 minutes during test
- For inflatable spas, a list of the accessories that were tested with the spa



# Test Lab Report Requirements

## Title 20 section 1604(g)(2)(C)

Test lab report requirements found in  
Section 5 of ANSI/APSP/ICC-14:

- Measured fill volume
- Ambient air temperature at one point during the test
- Make, model, and serial number of model tested
- Spa cover manufacturer and model number
- Record watt-hours, voltage, and current used during entire test period
- Record elapsed time during test period
- Total energy use



# Test Lab Report Requirements

- Test labs must be qualified by a certification body as specified in section 4 of ANSI/APSP/ICC-14 2014 for testing portable electric spas manufactured on or after June 1, 2019.
- A fact sheet for test lab approval for portable electric spas can be found at the following URL

[https://www.energy.ca.gov/appliances/documents/PES\\_Test\\_Lab\\_Qualification.pdf](https://www.energy.ca.gov/appliances/documents/PES_Test_Lab_Qualification.pdf)



# Effective Date

## Current Test Method

January 1, 2006 – May 31, 2019

## New Test Method

Manufactured on or after June 1, 2019



# Questions?



# Performance Requirements







# Performance Requirements

## Title 20 section 1605(g)(6)(B)

- The current performance requirements for normalized standby power for all spas shall be not greater than  $5(V^{2/3})$  watts, where V = the fill volume, in gallons
- The new normalized standby power requirements are:

Appliance	Normalized Standby Power Condition	Maximum Standby Power (Watts)
Standard, exercise and combination spas	as defined in Section 6.1, 6.2, and 6.3 of ANSI/APSP/ICC-14 2014	$3.75V^{\frac{2}{3}} + 40$
Inflatable spas	as defined in Sections 6.1 and 6.2 of ANSI/APSP/ICC-14 2014	$7(V^{\frac{2}{3}})$

Where V= the fill volume, in gallons.



# Expected Savings

	First-Year Savings (2019)		Complete Stock Turnover Savings (2028)	
Type	Energy Consumption (GWh/yr)	Savings (\$ millions)	Energy Consumption (GWh/yr)	Savings (\$ millions)
Standard Spas	11.7	2.1	137.5	25.5
Exercise Spas	5.3	1.0	62.6	11.6
Combo Spas	1.6	0.3	18.1	3.4
Inflatable Spas	7.4	1.4	23.8	4.4
<b>Total</b>	<b>26.0</b>	<b>4.8</b>	<b>242.0</b>	<b>44.9</b>



# Effective Date

## Current Standard

January 1, 2006 – May 31, 2019

## New Standard

Manufactured on or after June 1, 2019



# Questions?



# Where to Label





# Where to Label

## Title 20 section 1607(d)(14)(B)

For standard, exercise, and combination spas, the label shall be affixed on a readily visible location on the shell or skirt panel of the unit.





# Where to Label

## Title 20 section 1607(d)(14)(B)

For inflatable spas, the label shall be affixed on a readily visible location on the unit's retail packaging.

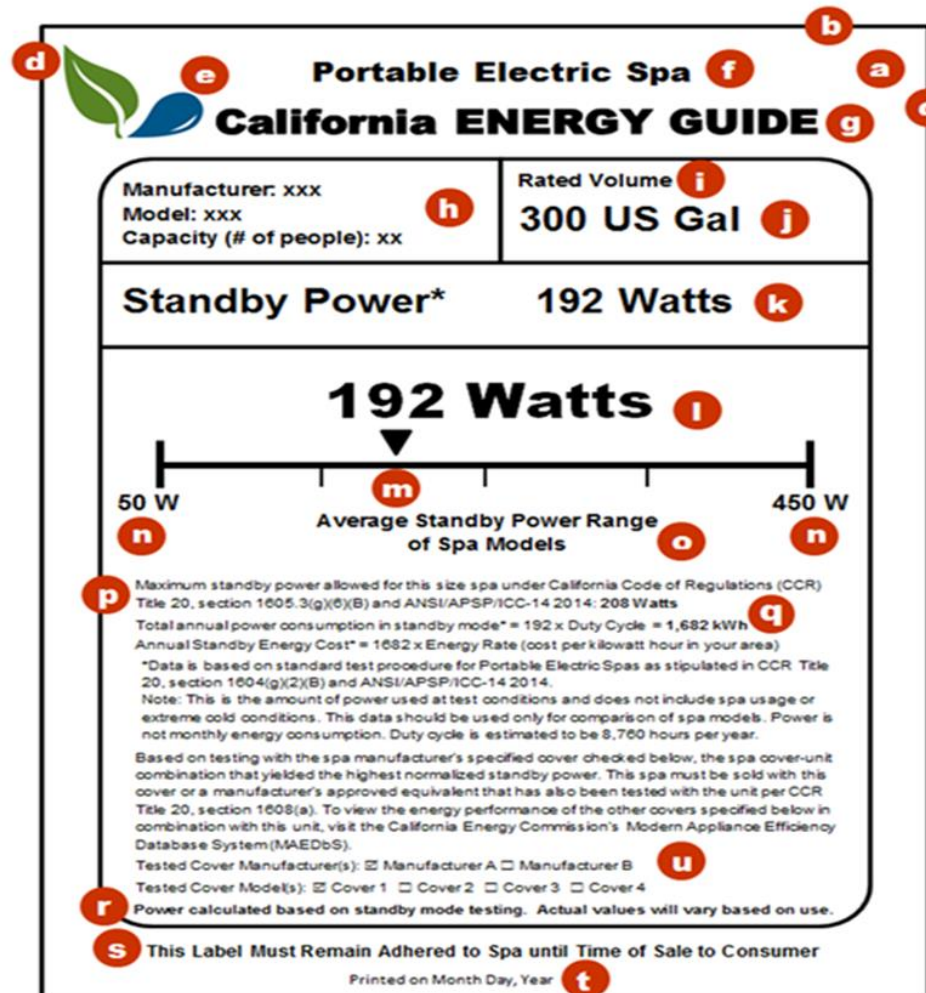




# What to Include on Label

## Title 20 section 1607(d)(14)(B)

Figure 1





33



# For Multiple Spa Covers

## Title 20 section 1607(d)(14)(B)

- The label may display the most recent spa cover model number(s) and corresponding spa cover manufacturer(s) for other covers tested with the unit.
- If the label lists multiple spa covers, the label shall display the spa cover model number(s) and corresponding spa cover manufacturer(s) of the spa covers tested with the unit as listed in MAEDbS.



# Printing and Adhesion

## Title 20 section 1607(d)(14)(B)

- The label shall be printed:
  - a. on a removable adhesive-backed white polymer label or the equivalent for standard, exercise, and combination spas.
  - b. or integrated as part of the unit's retail packaging design for inflatable spas.
- All adhesive labels shall be applied so they can be easily removed without the use of tools or liquids, other than water, but shall be applied with an adhesive with an adhesion capacity sufficient to prevent dislodgment during normal handling throughout the chain of distribution to the consumer.



# Marking Requirements

## Title 20 section 1607(b)(1-3)

Title 20 section 1607 marking requirements apply to all covered appliances:

The following information shall be permanently, legibly, and conspicuously displayed on an accessible place on each unit;

- a) manufacturer's name or brand name or trademark (which shall be either the name, brand, or trademark of the listed manufacturer specified pursuant to section 1606(a)(2)(A);
- b) model number; and
- c) date of manufacture, indicating (i) year and (ii) month or smaller (e.g. week) increment. If the date is in a code that is not readily understandable to the layperson, the manufacturer shall immediately, on request, provide the code to the Energy Commission.



# Effective Date

## Current Marking Requirements

January 1, 2006 – May 31, 2019

## New Marking Requirements

Manufactured on or after June 1, 2019



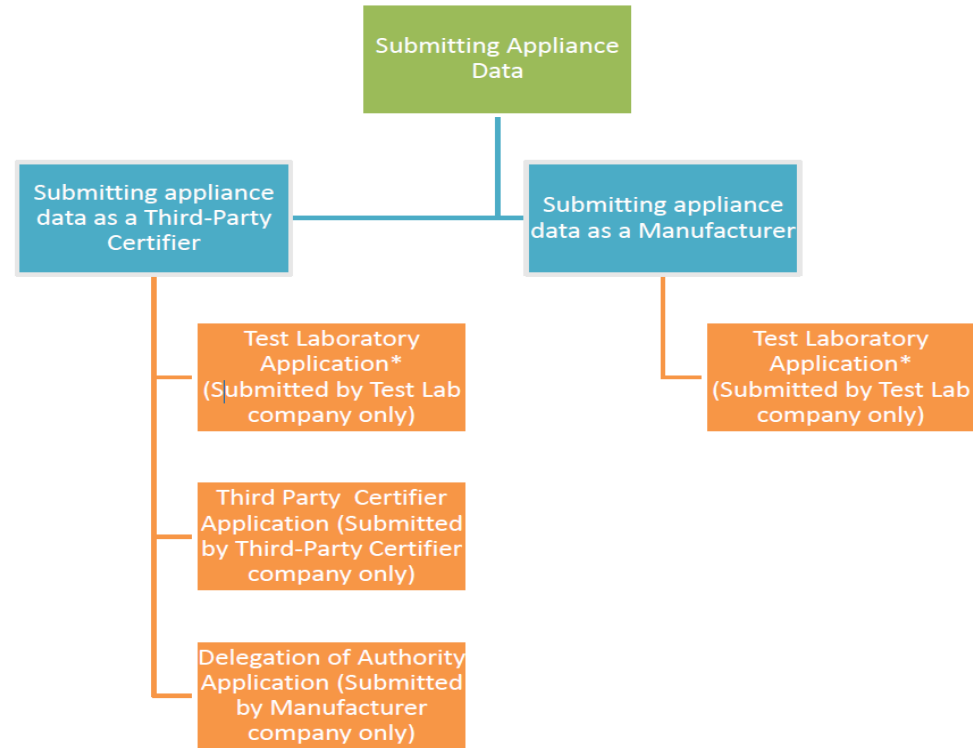
# Questions?



# Data Submittal Requirements and Certification



# Data Submittal Requirements



General instructions for Certifying to MAEDbS can be found at:

[http://www.energy.ca.gov/appliances/forms/MAEDBS\\_General\\_Instructions.pdf](http://www.energy.ca.gov/appliances/forms/MAEDBS_General_Instructions.pdf)





# Test Lab Application

## Test Lab Application

Company Information

Section 1

Appliance type and Test Method Selection

Section 2

Documents

Section 3

Declaration

Section 4

### California Appliance Efficiency Program 2015 Test Laboratory Application

[Submit](#) [Cancel](#)

#### Instructions

Please allow at least four weeks during the heavy renewal period (November-March) before contacting us regarding your application.

#### Company Information

\*Test Laboratory Name  
Test Company [Search](#)

Address 1  
1901 TEST LOCATION

Address 2

City  
SACRAMENTO

State

ZIP/Postal Code  
958260000

Country  
USA

Company Website (URL)

\*Contact First Name

\*Contact Last Name [Search](#)

Phone Number

Fax

Email Address  
@ENERGY.CA.GOV

#### Appliance Type and Test Method Selection

Appliance Type	Test Method
No records found	

[Add](#)

#### Documents

Document Name	Created Date
No records found	

[Upload Documents](#)

#### Declaration

- ☐ It has conducted tests using the applicable test method(s) specified on the first page of this application within the previous 12 months;
- ☐ It agrees to and does interpret and apply the applicable test method set forth in Section 1604 precisely as written;
- ☐ It has, and keeps properly calibrated and maintained, all equipment, material, and facilities necessary to apply the applicable test method precisely as written;
- ☐ It agrees to and does maintain copies of all test reports, and provided any such report to the Executive Director on request, for all basic models that are still in commercial production; and
- ☐ It agrees to and does allow the Executive Director to witness any test of such an appliance on request, up to once per calendar year for each basic model.
- ☐ I declare under penalty of perjury of the laws of the State of California, that: All the information in this statement is true, complete, accurate, and in compliance with all applicable provisions of Sections 1601-1608 of Title 20 of the California Code of Regulations, and I am authorized to make this declaration, and to file this application, on behalf of Test Company
- ☐ It agrees to, and will follow, all applicable provisions of the California Energy Commission's Appliance Regulations (Section 1601-1608 of Title 20 of the California Code of Regulations), in carrying out all testing pursuant to this application.

\*Name  \*Title  \*Date



# CERTIFICATION REQUIRES SIGNING A BINDING DECLARATION ON BEHALF OF YOUR COMPANY

## Declaration

---

I declare under penalty of perjury of the laws of the State of California that:

1. All the information in this statement is true, complete, accurate, and in compliance with all applicable provisions of Sections 1601 – 1609 of Title 20 of the California Code of Regulations.
2. Units of each basic model of appliance for which certification is requested have been tested in accordance with all applicable requirements of Sections 1603 – 1604 of Title 20 of the California Code of Regulations.
3. Section 1606(g) of Title 20 of the California Code of Regulations have been and are being complied with.
4. All units manufactured, distributed or otherwise intended for sale within the State of California have been and are being marked as required by Section 1607 of Title 20 of the California Code of Regulations.
5. The (i) manufacturer's name or brand name or trademark; (ii) model number; and (iii) date of manufacture are permanently, legibly, and conspicuously displayed on an accessible place on each unit, on the unit's packaging, or, where the unit is contained in a group of several units in a single package, on the packaging of the group.
6. The appliance complies with the applicable energy efficiency, energy consumption, energy design, water efficiency, water consumption, and water design standards in Sections 1605.1, 1605.2, and 1605.3 of Title 20 of the California Code of Regulations.

\*Name

\*Title

\*Date



Previous

Next



# Company Account Setup

## Company Account Setup:

Company Information:  
Full Name of Company

1

Company Type

2

Address

3

**CA .GOV** CALIFORNIA ENERGY COMMISSION

HOME SEARCH

### Create new company

**Instructions**

- Please fill out all the required fields marked by \*
- Please select all company types that apply.

**Company Information**

\*Company Name

Company Website (Follow Format: <http://www.energy.ca.gov>)

**Company Type**

☐ Manufacturer ☐ Test Lab ☐ 3rd Party Certifier

(Note: Selecting a company type does not grant immediate access by the California Energy Commission. A company will still need to submit an approval application before they are able to submit data. Checking a company type box allows access to applications specific to that company type.)

**Address**

\*Country

\*Address Line 1  Address Line 2

\*City  \*USA State  Foreign State/Province  \*ZIP/Postal Code

**Create User**



# Certification

- Portable electric spa manufacturers must certify new spas to MAEDbS.
- Instructions and templates are available online at: [http://www.energy.ca.gov/appliances/database/forms\\_instructions\\_cert/Pool\\_Products/](http://www.energy.ca.gov/appliances/database/forms_instructions_cert/Pool_Products/).
- If you have any questions or issues with certifying, please contact our call center at: [appliances@energy.ca.gov](mailto:appliances@energy.ca.gov).



# Certification

To upload your data using an Excel sheet, begin by downloading and completing the Excel file using the spreadsheet in the Portable Electric Spas (ESPA) certification packet. The Excel spreadsheet included in the certification packet should look like the succeeding slide and adhere to the following rules:

- The file type must be in the form of Excel 2010 or higher (.xlsx) file.
- Enter one model per row. Multiple models cannot be submitted in a single row.
- The limit of model listings per Excel file is 1000.
- Do not leave completely blank rows between rows containing data.
- The top row (Row 1) must contain column titles, starting at the top-left cell (cell A1).
- Do not change the column headings in the spreadsheet.



- New fields highlighted in yellow

- New fields highlighted in yellow

[illegible]



# Data Submittal Requirements

## To Manually Submit Data to MAEDbS

Portable Electric Spas

SaveCancel

**Instructions**

- Key in appliance data according to associated fields in the import template provided in the instructions for this specific appliance type. If the appliance brand name does not appear in the dropdown, enter it in the free entry field, this will be added to the system after CEC staff processing.
- Model data must first be processed by CEC prior to any submissions to change or delete previously submitted model data.
- **Brand codes are not accepted.**

\*Action

Please Select

\*Model Number

Manufacturer

Add Date

Brand

Please Select

New Brand

\*Regulatory Status

Please Select

Rated Voltage

Spa Type

Please Select

Rated Capacity (# of people)

Spa Enclosure Fully Insulated?

None

Portable Electric Spa Normalized Standby Watts

Portable Electric Spa Normalized Standby Watts Std

Portable Electric Spa Fill Volume (gallons)

Spa Includes Skimmer? (T/F)

None

Portable Electric Spa Rated Volume (gallons)

Exercise Spa Rated Volume (gallons)



# Resources

## Title 20 Call Center

Toll free inside California **(888) 838-1467**

From outside of California **(916) 651-7100**

[appliances@energy.ca.gov](mailto:appliances@energy.ca.gov)

## Title 20 Compliance Assistance listserv

<http://www.energy.ca.gov/efficiency/listservers.html>

## Webinar documents

<http://www.energy.ca.gov/appliances/forms/index.html#webdocs>

## Portable Electric Spas FAQs

<https://www.energy.ca.gov/appliances/outreach/>





# Questions?

